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**What do managers do? Is national culture related to the activities that
managers carry out?**

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ABSTRACT

This study has been made in order to discover what the main tasks that managers do are and whether the manager's culture influences in the frequency of the performance of these tasks. There are some schools that have tried to discover what do managers do, but among all these Mintzberg's one stands out. It was the first author that made an empirical study measuring which tasks and in which frequency managers perform. In order to see if culture and what do managers do is related we are going to use two national culture dimensions. Hofstede's Cultural dimensions and The Globe Project dimensions which both of them are renowned models. Also, for this study we obtained data from the OECD (The Organization for Economic Co-operation and Development). This organization makes an assessment in areas such as literacy, numeracy and problem solving as well as use of skills among population from countries belonging to the OECD. After computing the correlation coefficients among the dimension and different tasks that managers do in their position, no remarkable conclusion can be made and therefore we cannot state that culture and managers tasks are related. The reason why our study is not conclusive is the low significance of the results, due to scarce data. It will be interesting to repeat this study in future years when the OECD offers more data about more countries, what will make our sample larger and therefore more significant results.

KEY WORDS: Managers, tasks, national culture, survey of adult skills (PIAAC)

INDEX

1. INTRODUCTION	3
2. LITERATURE REVIEW	4
2.1 The Managerial work; an historical review	4
2.2 The Role School (1973).....	7
2.3 Contemporary theories	10
3. NATIONAL CULTURE	10
3.1 Definition of culture	10
3.2 Models of national culture	11
3.2.1 Hofstede	12
3.2.2. The Globe Project	15
3.2.3 Comparison between Hofstede's cultural dimensions and the Globe Project	17
4. DOES CULTURE AFFECT WHAT DO MANAGERS DO?	18
5. METHODOLOGY	19
5.1 Data	19
5.2 Measures	21
6. RESULTS.....	25
6.1 Punctuation	25
6.2. Correlation among literacy, numeracy and problem solving.....	26
6.3. Correlation between skill use index and Hofstede's model.....	27
6.4 Correlation between skill use index and The Globe Project	27
6.5. Correlation between literacy, numeracy and problem solving and skill use index	28
7. CONCLUSIONS	29
8. BIBLIOGRAPHY.....	30
9. TABLES.....	32
10. FIGURES.....	40

1. INTRODUCTION

Managers are an essential part of companies. R.W. Griffin defines manager as a person who first of all is responsible for the realization of the management process. In particular manager is the person that makes plans and decisions, organizes, supervises and controls human, finance and information resources (Griffin 2000).

Managers are important since they are a key element which helps the company in order to reach its goals. They collect the factors of production and organize the resources. They also integrate them in an effective manner to achieve goals. Also they are in charge of using the resources in an optimum way and therefore reduce the company's costs. Managers are also responsible of establishing a hierarchy in the company: who is accountable to whom, who can give instructions to whom, who are superiors and who are subordinates... Finally we do not have to forget that good managers made that profits raise which is beneficial to business and also to the society since it creates employment opportunities. Managers are a great issue to study since they are not only a key aspect in company, but also in the economic and social environment.

The main objective of this paper is to find out what the main tasks that managers must perform in their position are, and whether these tasks differ from managers working in different cultures. During the last years the study of different values and cultures and how these converge, has been an important debate. International companies need to understand the diverse values and cultures since these affect to the all international negotiation: more effective communication, avoiding misunderstandings, to diagnose real problems... Through this study we will verify if culture is that important and if in fact can influence managers in their position.

In this paper, we will start by presenting what different schools of thought have defended about the activities that managers do. We will mainly focus in Mintzberg's study since he is a referent in this topic. Also, we will explain the main cultural dimensions that are used in this study: Hofstede's model and The Globe Project. Then, concerning the data, we will present the International Assessment of Adult Competencies survey carried by the OECD that has been used in this paper, as well as the methods used to analyse the data. After that, we will expose some thoughts and ideas about how can be related the different cultural dimensions and the tasks that managers do. We will try to predict what the results of the study will tell us. To conclude, we will analyse the results obtained throughout the

paper in order to draw conclusions about the relationship between culture and the tasks that managers perform.

2. LITERATURE REVIEW

It is very difficult to give a precise definition of management. Different scholars from different disciplines view and interpret management in very different ways.

Through the years different they have given their own definitions and thoughts about what is management. Taylor (1948), the father of Scientific Management saw management as: ‘the art of knowing what you want to do and then seeing that it is done in the best and cheapest way. Other scholars saw management as a process. For instance Fayol (1949) thought that ‘to manage is to forecast and to plan, to organize, to command, to coordinate and to control’. Also, Renold (1949) defended that ‘Management is the process of getting things done through the agency of a community’. Management has also been related with leadership through the years. Scholar Davis (1951) said: ‘Management is the function of executive leadership anywhere’. His definition emphasizes on the manager’s responsibility of guiding the activity from others. Finally Dasgupta (1969) centered her definition in the creation and control of environment in an organization to a good atmosphere where people could give their best.

After reading all these definitions we can conclude by saying that managers are people who guide a company. They make plans, help and motivate people to work according to plans and keep an eye on their performance to get the results (Prasad, 2011).

Although a lot of research has been done about managers, we do not know enough about this occupation. It is difficult to describe what exactly the tasks that these professionals face in their everyday activity are and how they behave. Different schools have tried to explain the role of the manager and what were the main activities they faced. In the next section, we describe the most important ones.

2.1 The Managerial work; an historical review

The Classical Management School (1880’s) is one of the first schools of management thought. The classical management theory, was developed during the

Industrial Revolution when new problems related to the factory system began to appear. Henry Fayol, scholar that belonged to this school, defended that there were seven fundamental tasks for a manager.

Planning: setting the objectives and the plans and methods to achieve them.

Organizing: designing a hierarchy of authority in order to coordinate people in order to achieve the objectives.

Team making: tasks related to hiring people, train them and maintaining favourable working conditions.

Leading: taking decisions and giving orders and instructions, since the manager is the leader of a company.

Coordinating: interrelating the different parts of the manager work.

Informing: letting everybody he is responsible of know of what is going on in the company.

Estimating: making budgets

This school had its critics though. Carlson (1951) believed that these tasks did not describe the manager's work at all. Is it possible for a manager to say how many hours has he coordinated in one work day?

In 1911 The Great Man School arose. We can define this school as the literature written about the great managers. In this literature we can find the biography, anecdotes and details about the most outstanding managers. We can follow this school in publications and websites such as Forbes or Fortune where we will find rankings about world's great leaders, most powerful women etc.; interviews, news...; all related with managers and important companies. Also there are books, biographies and autobiographies we can study about the great leaders of management and political history. Although it is very interesting for certain sectors and to get to know better certain managers, we cannot find any data of what do they do in their job or how they behaved in their position (Mintzberg, 1983). Therefore, it is not really a management theory although we can learn a lot of it.

Some years later, during the 50's The Decision Theory School became popular. This school states that what really defines a manager is the task of making decisions,

choosing among alternatives to resolve a problem, difficulty or conflict that is going on in a company (Martin, 1956).

Defining the problem is the most important step and hardly ever do managers know what the consequences of their decisions will be. Also, this school defends that managers make decision not because they want to maximize profits but because it is part of their job, an obligation. They do not aspire to maximize profits because it is more important to avoid conflict among the different interest groups in a company which have different objectives (Cyert and March, 1963).

Also, another important task of managers is to 'schedule'. That means they have to design and modify the tasks their subordinates must do. There is a hierarchy in the company in which the higher levels are the ones in charge of scheduling.

The Leader Effectiveness School. (1960s) studies the interpersonal relationships between the leader and his subordinates. The most important issue for investigators of this school is to find what types of personal characteristics contribute to make a leader effective. Their research was focused in finding which characteristics were shared by effective leaders. However, the results were not conclusive since the common characteristics they found were so general (for instance self-confidence) that they were not really helpful. The most important scholars in this field were McGregor (1960) and Likert (1961). Through the years this school evolved and defended that the characteristics are not what defined an effective leader but the environmental factors such as the rewards the company gives, what kind of work does the leader supervise... (Campbell, 1970).

Continuing along the path related with leaders The Leader Power School (1960s) emerged. The authors of this school try to define the extent of the control that leaders have over their environment. They study how leaders can use their power to influence their colleagues and subordinates.

The main referents of this school, Dalton, Neustadt and Cartwright carried out different studies and came to different conclusions. Dalton (1959) conducted a famous study of middle managers, and concluded that informal social forces of bureaucracy tend to dominate individual action.

Neustadt's (1960) book "Presidential Power: The Politics of Leadership" found that effective power of the President is dependent on the style of the man and how he approaches his job.

Finally Cartwright (1965) in 'The Handbook of Organizations' examines the way one person (O) can influence another one (P). He describes a five part system to influence someone:

Reward. P believes that O has the capacity of giving him rewards.

Coercive. P believes that O has the capacity of punish him.

Referent. P feel identified with O.

Legitimate. P feels that O has the rights to influence on him.

Expert. P believes that O has special knowledge or experience.

2.2 The Role School (1973)

This school deserves an independent section since it was the first whose main aim was to study what managers do in their day a day work life. Mintzberg (1973), the creator of this theory, was the first one to do an empirical study about managerial activities. He directly observed five managers and made them write their activities every day in a diary. After his study he concluded that there were some particular characteristics of the manager's work.

- I. A lot of work in a hectic pace. A major reason that managers adopt this pace and workload is because of: a) their job is open-ended, b) the manager is responsible for the success of the organization, c) work is never finished and managers are perpetually preoccupied.
- II. Activity is characterized by brevity, variety, and fragmentation. There is great variety of activities on distinct issues. Managers tolerate interruption because they do not wish to interrupt the flow of current information. They assume a lot of work because they are aware of how valuable is that for their organisations: mail that must be answered, meetings he must go...

- III. There is a preference for live action. Managers have a preference for the more active elements of his work activities that are specific, well defined, and non-routine. Managers desire to have the most current information, and instant communication and feedback.
- IV. Managers are attracted to the verbal media. They prefer face to face meetings and telephone conversations.
- V. Managers are between the organization and a network of contacts. The manager maintains communication relationships with three groups: superiors, outsiders, and subordinates. To gain access to outside information, these managers developed a network of informers, a sort of self-designed external information system which included peers, friends...
- VI. Combination of rights and duties. Although managers think they have a lot of control of their activity, there are a lot of limitations that make that, that control is not the one the manager desires.

Also, Mintzberg gave a definition of role, what he considered as an organized set of behaviours corresponding to a particular profession. After carefully watching five managers, he set a combination of ten roles. The manager's tasks can be divided into three groups: the ones corresponding to interpersonal relationships, the ones related with transmission of information and the ones connected with decision making. That's why Mintzberg divides its ten roles into three groups as well: three interpersonal roles, three related with information roles and four connected with decision making.

a) Interpersonal roles

This area contains all the behaviours related with the association of two or more people in long term. This association can be personal when it is based in feeling or emotions or professional when it is related with business or a concrete interest. There are three roles according to the author of this theory:

Figurehead: the most fundamental and simple role. It is the person in charge of routinely duties, the representative person of the company.

Leader: responsible of the motivation of the subordinates. He should create a favourable environment for team work, train the team and achieve the objectives previously set. He should also define the company culture and policy.

Liaison: the manager deals with the significant web of internal and external relationships that he has created and that provide him information and favours.

b) Informative roles

Contains all the roles related with manager's behaviour connected with communication and processing information.

Monitor: the manager is continually looking for, and being bombarded with information that makes him able to understand what is taking place in the organization and its environment.

Disseminator: the manager sends external information into his organization and internal information from one subordinate to another.

Spokesman: the manager transmits information out to his organization's environment to speak on behalf of the organization.

c) Decision making roles

Contains all the roles connected with using information. Thanks to the great amount of information the manager has, his status and his special authority he takes important decisions on behalf of the company.

Entrepreneur: the manager acts as initiator and designer of much of the controlled change of the organization. By using the monitoring role, he seeks opportunities, sees problems, and initiates actions to improve situations. Managers can be involved in improvement project design at three levels: a) delegation (all responsibility to others), b) authoritarian (delegates design, but retains choice making), c) supervision (retains design and decision in projects).

Disturbance handler: the manager deals with involuntary situations and changes beyond their control, such as crisis or emergencies.

Resource allocator: as a formal authority, the manager must oversee the system by which organizational resources are allocated. There are three basic elements of resource allocation: a) scheduling of time, b) programming work, c) authorizing actions

Negotiator – managers participate in negotiation activities

Although Mintzberg's study was published in 1983, it is still a reference in management studies. Some studies have state that nowadays managers have a much larger workload, a contact pattern to a larger degree oriented towards subordinates in group-settings, a greater emphasis on giving information, and less preoccupation with administrative work, however Mintzberg conclusions are still applicable. (Tenglab, 2007)

2.3 Contemporary theories

Although Mintzberg is still the most cited author when talking about what do managers do, during the last years other schools of thought have arisen. The most popular one is the Top Quality Management School (1990's). This school defends that the manager should make efforts to install and make permanent a climate in which an organization continuously improves its ability to deliver high-quality products and services to customers. What is the same, there should be a combination of quality and management tools that pursue increasing the business and reducing losses due to wasteful practices. (Deming, 1989).

Its philosophy seeks to integrate all organizational functions (marketing, finance, design, engineering, and production, customer service, etc.) to focus on meeting customer needs and organizational objectives. Therefore, the managers should plan (drive, direct), do (deploy, support, participate), check (review) and act (recognize, communicate, revise) in order to reach that climate of permanent improvement through the integration of all organizational functions.

Should be noted that this school is not focussed in studying what managers do. It does not show to us how many hours should a manager study, or write emails or any other activity in order to reach his objective. It just gives a piece of advice to managers concerning how they should behave to increase the quality of their companies. Therefore, this contemporary theory is not comparable to Mintzberg's.

3. NATIONAL CULTURE

3.1 Definition of culture

Culture is an abstract, complex and problematic term (Barber & Badre, 1998). It has been defined in various ways. For example, Geert Hofstede, researcher of cross-cultural groups and organizations defines culture as: 'the collective programming of the mind distinguishing the members of one group or category of people from another [...]the unwritten rules of the social game'. That means the ideas, customs and social behaviour of a particular people or society (Hofstede, 1970).

Another popular definition was given by Northouse: 'Culture is defined as the learned beliefs, values, rules, norms, symbols, and traditions that a group of people shares. The group that shares these qualities makes them unique' (Northouse 2007).

It is important to note that there are different levels of culture. All these different levels interact closely with each other. These are: national/societal, social Identity Group, organizational, functional, team, and individual. For this study we will focus in national culture.

We can also define national culture as: 'The resulting shared values, preferences, and behaviours within a country' (Katz, 2005). The influence of national culture shape strong value systems among the population of a country. However some scholars object that there may be significant cultural diversity within some countries and similarities across national borders, compromising the concept of national culture (Minkov, 2010).

3.2 Models of national culture

Theories about national culture could be applied in a lot of company areas, for instance in Marketing. Because all aspects of consumer behaviour are culture-bound, there is an increased need to identify and understand this integration and its impact on global marketing and advertising. Culture can be used to explain the differences in consumer behaviour across countries and can be a guide to increase efficiency in global marketing

Culture can be used also in recruitment tasks. For international organisations, recruiting the right people is really important. Coping with the complex international environment requires organisations to employ the people with the competences they need. Recruitment departments, therefore, develop profiles containing these desired competences: skills and character traits. However these skills and traits differ from one country to another. Therefore culture can be useful to see the difference among countries.

As a last example, since culture can provide us with many answers on how and why people behave differently around the globe, companies should discover what a good boss is or how a team should be made and leaded in each country. The leadership styles and guidelines a company practice in one country may be not the adequate for another one.

In all this situations companies should measure culture, but how? There are models of national culture that try to discover what the main differences among countries are. The most well-known are: Hofstede's theory, The Globe Project, Trompenaars' model of national culture differences, Kluckhohn and Strodtbeck's Dimensions of Culture, Schwartz Value's theory... All these models propose some dimensions or questions. The countries' score in the dimensions or its answers in the questions will show how they are in terms of culture.

For this study we have worked with two models of national culture, Hofstede's theory and The Globe Project. Hofstede conducted one of the most comprehensive studies of how values in the workplace are influenced by culture. Also, Hofstede can be regarded as one of the leading representatives of intercultural research and studies. The findings of his research and his theoretical ideas are used worldwide. Finally, there is a great amount of information about this author and his theory. Then The Globe Project, is a quite recent stud, it was in 2004 when its first volume became available. A study of 62 countries based on results from about 17,300 middle managers from 951 organizations in the food processing, financial services, and telecommunications services industries. Its second volume became available in 2007 and it is focused in 25 countries.

3.2.1 Hofstede

From Hofstede's work we see that there are differences between national cultures and consequently between managers from around the world. Hofstede developed a five dimension model to identify cultural patterns thanks to the research that he conducted in more than 70 countries across the globe. The database for the research was gathered at IBM, between the years 1967 and 1973. These five dimensions are something that all societies have to cope with, but on which every society's answers are very different. These six dimensions serve to study and understand each culture worldwide, so we can understand better the cultural that predominate in some areas of the world and thus adapt to it. The dimensions he developed were the following-

- a) Masculinity versus Femininity: masculine cultures have a preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. On the other hand, femininity cultures have a preference for cooperation, modesty, caring for the weak and quality of life. The society is more consensus-oriented.
- b) Uncertainty avoidance: the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. Countries exhibiting strong uncertainty avoidance maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak uncertainty avoidance countries maintain a more relaxed attitude in which practice counts more than principles.
- c) Power distance: the acceptance of authority differences between those who have power and those affected by power. High power distance is authoritarian, and protocol, formality and hierarchy are considered important. The manager of the company is often directly involved in the negotiations and is the final decision-maker. Low power distance cultures are more informal.
- d) Individualism versus collectivism: individualism cultures have a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Collectivism cultures have a preference for a tightly-knit framework in society which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestionable loyalty.
- e) Long term pragmatic: it refers to the importance given in a culture to planning long-term life in contrast to the immediate concerns. Long term cultures, encourage long-term vision for future rewards. Short term cultures encourage related to the past and present, national pride, respect for tradition.
- f) The last dimension is indulgence versus restrain: Indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.

Insert table 1. OECD countries scores in Hofstede's national cultural dimension.

Watching the table, we can see how extreme can be the scores among the OECD countries. For example Slovakia and Russia score 100 and 93 on power distance (the

highest scores) while Austria and Denmark score 11 and 18 respectively (the lowest scores). In the individualism dimension the results are not so extreme. The only result that stands out is Korea's with a low score of 18, which makes this country the more collectivistic one of the countries studied. When talking about masculinity extreme scores arise again. Slovakia once again stands out as the more masculine country whereas Sweden score 5, the more feminine country with The Netherlands with a punctuation of 14. Then, in the uncertainty avoidance dimension just six out of 22 countries score below 50, what shows that most of the studied countries are not comfortable with ambiguity. In the long term orientation dimension Korea stand out once again, but this time with the highest score a 100, what shows us that Korea put long-term goals at first. On the other hand Ireland scores 24 and that makes this country the one that most puts short-term goals at first. Finally, about the last dimension Estonia stands out as the least indulgent country with a score of 16. The highest score, 78 belongs to Sweden.

Although Hofstede's work is the most widely cited related with culture, he has critics too. Many researchers allude a survey is not an appropriate instrument for accurately determining and measuring cultural differences (Schwartz, 1999). Hofstede answers this criticism saying that surveys are not the only method that was used when doing his research (Hofstede 1998).

Then, Hofstede's study assumes the domestic population is homogenous. However inside a country we can find diverse ethnic groups that are culturally different and his dimensions do not capture that. (Nasif et al. 1991). Also, some scholars defend that nations are not the proper units of analysis as cultures are not necessarily bounded by borders (McSweeney 2000). It has been found that culture is fragmented across national lines (DiMaggio 1997).

The research started during the 60's. At that time Europe and America were living the cold war and there were still vivid memories of World War Two. Because of that some scholars argue that the results were influenced by the timing of the survey. (Newman 1996). Also, it is said that the study is too old, particularly with today's rapidly changing global environment, internationalisation and convergence. Therefore the data is not valid for our times.

Finally, the actual dimensions do not give sufficient information about cultural differences. Hofstede agrees, and believes that additional dimensions will be added to his original work (Hofstede 1998).

3.2.2. The Globe Project

The "Global Leadership and Organizational Behaviour Effectiveness" (GLOBE) Research Program was conceived in 1991 by Robert J. House. GLOBE's major finding is that leader effectiveness is contextual, what means that, it depends on the societal and organizational norms, values, and beliefs of the people being led.

The main intention that House had, was to increase the understanding of cross-cultural differences and culture's impact on management. Countries were divided into ten cultural clusters and each cluster has a specific style of management. Cultural similarity is greater among societies that constitute a cluster; cultural differences increase the farther clusters are apart.

Insert figure 1. Country Clusters According to GLOBE (House, 2004)

As a first step to measure leader effectiveness across cultures, GLOBE empirically established nine cultural dimensions that make possible to capture the similarities and differences in norms, values and beliefs among societies. House takes into account findings by Hofstede (1980), Schwartz (1994), Smith (1995), Inglehart (1997), and others. The cultural dimensions he established were:

- a) Power Distance: The degree to which members of a collective expect power to be distributed equally.
- b) Uncertainty Avoidance: The extent to which a society, organization, or group relies on social norms, rules, and procedures to deal with the unpredictability of future events.
- c) Humane Orientation: The degree to which a collective encourages and rewards individuals for being fair, altruistic, generous, caring, and kind to others.
- d) Institutional Collectivism (Collectivism I): The degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action.
- e) In-Group Collectivism (Collectivism II): The degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families.

- f) Assertiveness: The degree to which individuals are assertive, confrontational, and aggressive in their relationships with others.
- g) Gender Egalitarianism: The degree to which a collective minimizes gender inequality.
- h) Future Orientation: The extent to which individuals engage in future-oriented behaviours such as delaying gratification, planning, and investing in the future.
- i) Performance Orientation: The degree to which a collective encourages and rewards group members for performance improvement and excellence.

Insert table 2. OECD countries scores in The Globe Project national culture dimensions

Watching the table, we notice that some values are missed, the ones concerning Slovakia, Belgium, Czech Republic and Estonia. The data from these countries was not able in The Globe study, since they were not studied. The punctuation given to each dimension is based on a 7-point scale. In the Globe Project the scores that the different countries have are not as extreme as the ones in Hofstede's. In the assertiveness dimension Germany ranks first with a punctuation of 4,73 whereas Sweden with 1,35 points less is the country with least points. Then, about future orientation The Netherlands is the country that is more future oriented with a score of 4,32., on the other hand Italy is the country that scores least in this dimension. Also, The Globe Project tells us that Russia is the country where both genders are treated in the same way. Korea stands out in this dimension because of the contrary reason. Then, Ireland is the country with the greatest score in the human orientation dimension, 4,96 points while Spain with 3,32 has the lowest score. Talking about collectivism, Russia and Poland ranks best in the in group category and Sweden and Korea in the institutional category. However Sweden just ranks 3,66 (the second lowest score) in the in group collectivism category and Italy with 3,68 points constitute the lowest score in the institutional collectivism. Russia is the country least oriented to performance with 3.39 points, on the other hand we have Korea with 4,55 points. In the power distance dimension, Russia (just as in Hofstede's) and Germany have the greatest scores whereas Denmark has the lowest one (once again just like in Hofstede's). Finally, in the last dimension, uncertainty avoidance, Russia scores just 2,88 points while Sweden almost double this score with 5,32 points.

Just as Hofstede's work, the Globe Project has critics too. Some scholars argue that the study does not provide a clear set of assumptions and propositions that can form a

single theory about how culture relates to or influences leadership and therefore managers, the core of the study. (Virkus, 2009).

Then, the definitions of cultural dimensions are not really developed or detailed, therefore sometimes it is difficult interpret and understand the findings about culture and leadership.

This study focuses on what people perceive to be leadership and does not pay attention to what actually leaders do, and if those behaviours differ from cultures.

Finally, the Globe Project tends to isolate a set of attributes that are characteristic of effective leaders without considering the influence of the situational effects (Northouse, 2007).

3.2.3 Comparison between Hofstede's cultural dimensions and the Globe Project

Both Hofstede Model and GLOBE Model are highly valuable research studies in international business and management. Given the increasing globalization of industrial organizations, the need for a better understanding of cultural differences on managers and organizational practices has never been greater (House et al, 2004).

There are some similitudes as well as differences between the two studies in the way national culture is measured. First of all both studies include the dimensions of uncertainty avoidance and power distance. However the Globe project includes more dimensions than Hofstede. For instance, Hofstede's masculinity dimension is measured with the two Globe dimensions of gender egalitarianism and assertiveness. In a like manner, Hofstede's collectivism is measured with institutional collectivism (collectivism I) and in-group collectivism (collectivism II) in the Globe Project. Then, whereas Hofstede's long-term orientation is similar to the globe's future orientation. Finally there are two additional dimensions of culture in Globe, performance orientation and humane orientation that are not measured by Hofstede.

Another difference is the data collection. Hofstede, the principal research investigator, analysed data from just one multinational company (IBM) and its 53 regional during the 60's. In contrast, the GLOBE study, was conducted in the period of 1994-1997 by more than a hundred researchers, researching about 951 non-multinational organisations (Hofstede, 2006). We also have to say that the Globe researchers were heavily influenced

by Hofstede's work in their choice of variables to assess, and some of their dimensions share labels with the Hofstede dimensions.(McCrae et al, 2008).

Finally, the Globe study is less criticised than Hofstede, either because there are fewer controversial issues or because it is much more recent and therefore researchers haven't yet fully analysed it. Hofstede himself wrote a critical review which, amongst other issues, argues that the Globe study is US centric, that it fails to capture what is intended through the questionnaire and that some of the dimensions are unnecessary. (Hofstede, 2001).

4. DOES CULTURE AFFECT WHAT DO MANAGERS DO?

In our opinion, those managers whose country is considered as an individualistic one, will spend less time cooperating with co-workers and teaching. Also they will spend less time advising people and planning others activities. In individualistic countries, managers are expected to take care of only themselves and their immediate families. Therefore, it is logical to think that the time invested in the activities previously mentioned will be less than in collectivistic countries.

Then, managers belonging to countries exhibiting a high score in uncertainty avoidance and performance orientation will read more newspapers, professional journals, manuals and financial statements. Also, they will spend more time planning and organizing their time. Then, they will spend more time calculating budgets and costs. These cultures feel uncomfortable with the sense of uncertainty and ambiguity; therefore managers will make efforts to gather information from publications and people. Also, they will use more they numeracy skills in order to make figures and computations with the objective of predicting the future.

Managers working in a long term culture will like learning new things and keeping up to date. Long term culture managers emphasize the future and the persistence. Therefore they will not stop learning in case new opportunities arise. Due to this we can also infer that these countries will have great scores in the ICT skill use index. Programming and using computers is very important now, and its importance is growing. It is hard to find a manager with no knowledge of information and communication technologies nowadays.

Also, those managers working in a feminine or human oriented country will spend more time teaching and advising people, since these cultures are related with cooperation,

equality, caring for the weak and quality life. Managers working in this type of cultures will enjoy spending time with other co-workers and sharing their knowledge. On the other hand masculine countries are more related with competition so managers from these countries will not share their knowledge with other people or care for the others.

Those managers whose country has great levels on power distance will spend more time writing reports and filling in forms since, these cultures are authoritarian and give great importance to protocol, formality and authoritarianism. Also, they will spend more time in their offices. Because of this reason is logical to think that these managers will be related in a negative way with Globe's dimension indulgence.

Those managers living in countries which are said to be indulgent will spend less working hours, since they tend to allow relatively free gratification of natural human desires related to enjoying life and having fun. When it is time to go home this managers do not hesitate and leave their work places.

5. METHODOLOGY

5.1 Data

In order to carry out this study the first step was to collect the right data. It was not an easy task since there is not a lot of information about the topic we are going to study. After a research through different data bases we found what we were looking for in The Organization for Economic Cooperation and Development (from now on OECD) data base. This organisation is a unique forum where the governments of thirty four democracies with market economies work with each other, as well as with more than seventy non-member economies to promote economic growth, prosperity, and sustainable development. They offer us data from the Programme for the International Assessment of Adult Competencies (from now on, PIAAC)

PIAAC is an initiative of the OECD that assists governments in assessing, monitoring and analysing the level and distribution of skills among their adult populations as well as the extent of skills use in different contexts.

What the OECD looks for is to help educators, policy makers and labour economists to develop economic, education and social policies that will continue to enhance the skills of adults.

The survey is implemented by interviewing around 166 000 adults aged 16-65 in their homes, approximately 5000 individuals in each participating country. Data collection for the Survey of Adult Skills took place from 1 August 2011 to 31 March 2012 in most participating countries.

The survey was carried out under the supervision of trained interviewers either in the respondent's home or in a location agreed between the respondent and the interviewer. The background questionnaire was administered in Computer-Aided Personal Interview format by the interviewer. Depending on the situation of the respondent, the time taken to complete the questionnaire ranged between 30 and 45 minutes.

After having answered the background questionnaire, the respondent completed the assessment either on a laptop computer or by completing a paper version, depending on their computer skills. Respondents could take as much or as little time as needed to complete the assessment. On average, the respondents took 50 minutes to complete the cognitive assessment.

The survey is designed to be valid cross-culturally and cross-nationally. Countries are able to administer the survey in their national languages and still obtain comparable results. Also this survey will be repeated over time to allow policy makers to monitor the development of key aspects of human capital in their countries. The survey collects information on the reading and numeracy related activities of respondents, the use of information and communication technologies at work and in everyday life, and on a range of generic skills, such as collaborating with others and organising one's time, required of individuals in their work etc. Respondents are also asked whether their skills and qualifications match their work requirements and whether they have autonomy over key aspects of their work. Below is shown a summary of the main elements of the survey.

Direct assessment	<ul style="list-style-type: none"> • Literacy • Numeracy • Reading components • Problem solving in technology-rich environment
Module on skills used	<ul style="list-style-type: none"> • Cognitive skills - reading, writing, mathematics... • Interaction and social skills - collaboration, planning, communication, negotiation, customer contact... • Learning skills - coaching, learning...
Background questionnaire	<ul style="list-style-type: none"> • Demographic characteristics • Education and training • Employment status and income

The countries that have already participated in the survey are: Australia, Austria, Belgium (Flanders), Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Korea, Netherlands, Norway, Poland, Russian Federation, Slovak Republic, Spain, Sweden, United Kingdom (England and Northern Ireland) and United States. This survey will reach more countries during the next years since it will be conducted in future years.

5.2 Measures

The survey's data base offers us more than a hundred derived variables divided in five fields: background variables, education and training variables, labour force variables, earning variables and skill use at work index variables. For our study we will take the labour force variables, in order to make a filter and take only the data concerning managers and the skill use at work variables.

First of all, we need to take only the data concerning managers. There is a variable which will enable to do so. Its name is ISCO1C: Occupational classification of respondent's job. This variable classifies the interviewed people into: armed forces; professionals; technician and associated professionals; clerks; service workers and shop and markets sales workers; skilled agricultural and fishery workers; craft and related trades workers; plant and machine operators; elementary occupations; legislators, senior officials and managers; people that have not been paid for the past five years and people who

refused answering. The sample sizes concerning managers range from 90 to 700 in each country.

Once we have filtered the data, we should take the skill use at work variables that are more useful for this study. After having carefully watched all the index variables, we have made a selection of nine derived variables indexes. It is important to note that every index has been built from diverse variables, therefore we are going to explain which are the indexes we have chosen and from which variables are made.

The first index we have chosen is the learning at work index, which represents how many hours does a managers use in learning tasks. This index is made from three reference variables. Below we describe the variable name and what was the question that managers should answer in the survey:

- D_Q13a: How often do you learn from co-workers or supervisors?
- D_Q13b: How often do you spend learn-by-doing?
- D_Q13c: Hoy often do you keep up to date?

The next index selected is the one related with the information and communication technologies. It measures how much time spend managers using computers, the internet, different programs etc. It is made from six different variables:

- G_Q05a: How often do you use the email?
- G_Q05c: How often do you use the internet?
- G_Q05d: How often do you conduct transactions through the internet?
- G_Q05e: How often do you do spreadsheets?
- G_Q05f: How often do you use the Word program?
- G_Q05h: How often do you have real-time discussions through the internet?

The next one is called use of influencing skills at work. It is related to how much of their time spend managers with other people. It is build up from six variables:

- F_Q02b: How often do you teach people?
- F_Q02c: How often do you do presentations?
- F_Q02e: How often do you advise people?
- F_Q03b: How often do you plan others activities?
- F_Q04a: How often do you influence people?
- F_Q04b: How often do you negotiate with people?

Then, we have selected the use of numeracy skills at work index. It measures how much time spend managers in activities related with figures: computing budgets, using mathematics etc. It is made from six variables:

- G_Q03b: Hof often do you calculate costs or budgets?
- G_Q03c: How often do you use or calculate fractions or percentages?
- G_Q03d: Hof often do you use a calculator?
- G_Q03f: How often do you prepare charts graphs or tables?
- G_Q03g: How often do you use simple algebra or formulas?
- G_Q03h: How often do you use advanced mathematics or statistics?

The fifth index is called use of planning skills at work index. It measures how much time is used in planning and organising their own and others time. It is made of three variables:

- F_Q03a: How often do you plan your own activities?
- F_Q03b: How often do you plan others activities?
- F_Q03c: How often do you organise your own time?

Then we have taken the use of reading skills at work. It measures how much time spend managers reading and writing. This index is made from eight variables:

- G_Q01a: How often do you read directions or instructions?
- G_Q01b: How often do you read letter memos or mails?
- G_Q01c: Hof often do you read newspapers or magazines?
- G_Q01d: How often do you read professional journals or publications?
- G_Q01e: How often do you read books?
- G_Q01f: How often do you read manuals or reference materials?
- G_Q01g: How often do you real financial statements?
- G_Q01h: How often do you read diagrams maps or schematics?

The seventh index we have chosen is called use of task discretion at work. It measures different issues related with their work such as how fast do they do they work, how many hours they spend in the office etc. It is composed of four variables:

- D_Q11a: To what extent can you choose or change the sequence of your tasks?
- D_Q11b: To what extent can you choose or change how you do your work?

- D_Q11c: To what extent can you choose or change the speed or rate at which you work?
- D_Q11d: To what extent can you choose or change your working hours?

Finally, the last index taken for this study is named use of writing skills at work. It measures how many hours spend managers writing. It is set up from four variables:

- G_Q02a: How often do you write letters memos or mails?
- G_Q02b: How often do you write articles?
- G_Q02c: How often do you write reports?
- G_Q02d: How often do you fill in form?

All but one variable, are measured in time units: never; less than once a month; less than once a week but at least once a month; at least once a week but not every day; every day; don't know or the subject refused to answer the question. The other variable, index of task discretion at work, is measured in extents: not at all; very little; to some extent; to a high extent; to a very high extent; don't know or the subject refused to answer.

Finally we have also decided to include three more variables into our study that are not related with skills use. The literacy, numeracy and problem solving scores of managers. These variables measure the proficiency of managers in writing and reading, the use of mathematics and solving difficulties. These are considered to constitute key information processing and are prerequisites for gaining access to and understanding of specific domains of knowledge. In addition, these skills are necessary in a broad range of contexts, from education through work to everyday life.

In the literacy field, the survey evaluates adults' ability to read digital texts (e.g. texts containing hyper-text and navigation features, such as scrolling or clicking on links) as well as traditional print-based texts. In numeracy, respondents are given some mathematical and logical problems. In the last field test, the problem solving one, respondents must open a certain website and look for the information they need in order to answer some questions.

6. RESULTS

First of all should be noted that the analysis unit used in this study has been countries and not the observations of each country. Therefore our sample is made up of 21 countries.

In order to see if culture and what do managers do in their position are related we are going to use correlation coefficients. This statistical tool shows the degree to which two or more attributes or measurements on the same group of elements show a tendency to vary together.

A positive correlation indicates the extent to which those variables increase or decrease in parallel: high values of one variable correspond to high values on the other variable. As closer to 1 is the coefficient of correlation that means that the correlation is stronger.

A negative correlation indicates the extent to which one variable increases as the other decreases: high values of one variable will usually correspond low values of the other and vice versa. As closer to -1 is the coefficient of correlation that means that the correlation is stronger.

We do not have to forget that correlation does not imply causation. There may be, for example, an unknown factor that influences both variables similarly.

Also, we have computed the significance of the correlations. The objective of this statistical tool is to check if the association of two variables is real or fictional, since maybe there are biases, or maybe the correlation is positive by random.

The following abbreviation is going to be used from now on in the correlation tables. A simple asterisk (*) to represent $p < 0.05$, double asterisk (**) for $p < 0.01$, or a sum sign (+) for $p < 0.10$. The value of "p" indicating that the association is statistically significant has been arbitrarily selected and is considered at 0.10.

6.1 Punctuation

Insert table 3. OECD's countries punctuation in PIIAC's survey.

The values in these indexes range from one to five points. The greater the punctuation, the more usually does the manager that task. One point means that managers never do that task. Two points mean that managers do that task less than one a month. Three points

mean that managers do that task less than once a week but at least once a month. Four points mean that managers do that task at least once a week but not every day. Finally, five points mean that managers do that task every day.

In the table, the three greatest scores are written in green whereas the three lowest are written in red. Italy and Spain have one of the worst scores in four tasks. That makes them the countries with some of the lowest scores in the different tasks. On the other hand, Germany, Denmark and USA have one of the greatest scores in three tasks, what makes them the countries with some of the highest scores in different tasks.

6.2. Correlation among literacy, numeracy and problem solving

First of all, we are going to analyze the scores in numeracy, literacy and problem solving of the managers of different OECD countries.

Insert table 4. Mean scores in literacy, numeracy and problem solving by country.

First, we can see there are some missing values in the problem solving column. That is because in some countries, data protection laws mean that some variables cannot be included in the public data files for that country.

Finland, Japan and Sweden are the countries that have best scores. In fact, Finland ranks first in every variable. Maybe it is due to its famous educational system, which allows this country to rank among the first positions in the PISA report. Baltic and Asian countries rank very high in that report and that can be transfer to the PIIAC.

On the other hand, Spain Italy and Russia are the countries with least score in literacy and numeracy. Once again this can be related with the PISA report. All these countries score below the OECD countries mean. Therefore, these results may be explained by the educational systems of these countries. The lack of strong educational policies may cause the low scores of Spanish, Italian and Russian managers.

Also we can suppose that as higher is the rank in one variable, the higher will be the others. That is clearly shown in the last table. Those countries that rank best in one variable; have good scores in the other variables as well. In the same manner, those countries exhibiting the worse value in one variable rank the worst in the other variables as well. That can be validated with the correlation coefficients.

Insert table 5. Correlation between literacy, numeracy and problem solving.

All the variables are strongly positively correlated especially numeracy and literacy. Also, all the correlations are significant, which means that the correlation among the variables is real.

6.3. Correlation between skill use index and Hofstede's model

Once again we have built a table that shows us the correlation between the skill use indexes that we have described before and the cultural dimensions of Hofstede's model.

Insert table 6. Correlation between manager's activities and Hofstede's model.

The results that these table shows are quite contradictory to the suppositions we have made before. As we can see in the table, the correlation between uncertainty avoidance and reading skills, planning skills and numeric skills is negative. Therefore managers working in high uncertainty avoidance countries or performance oriented countries do not read more newspapers, manuals etc., do not spend more time planning and do not spend more time neither in calculating budgets and costs.

Then, long term orientation is negatively correlated with learning skills and ICT skills. One again, the opposite to which we have predicted before.

However we have made a good prediction concerning masculinity, which is negatively correlated with influencing skills. That means that masculine countries spend less time teaching and advising people.

Those managers living in countries exhibiting great power distance, spend less time writing reports and filling in forms, due to the negative correlation between this two variables. Once again, this result goes in the opposite direction of what we have proposed.

6.4 Correlation between skill use index and The Globe Project

Hoping that the results concerning the relationship between skills use index and The Globe Project dimensions give results that support our initial suppositions, we have built another table of correlation coefficients.

Insert table 7. Correlation between manager's activities and The Globe Project dimensions.

As in the previous correlation table, the in group collectivism is negatively correlated with influencing skills. That means that collectivistic countries spend less time cooperating with co-workers and teaching. Again, this does not support our initial thoughts.

When talking about uncertainty avoidance, the results support our initial prepositions. Managers belonging to countries exhibiting a high score in uncertainty avoidance and performance orientation will read more newspapers, professional journals, manuals and financial statements. Also, they will spend more time planning and organizing their time. Then, they will spend more time calculating budgets and costs.

Our next thought was that managers working in a long term culture will like learning new things and keep up to date as well as that they will score higher in the ICT skill use index. The data presented above, does not support that they spend more time learning new things, but it supports that they score higher in ICT skills use.

Then, the correlation between human orientation and use influencing skills index gives us support to state that this countries spend more time teaching and advising people.

Finally, the data shows a negative correlation between power distance and task discretion; therefore managers living in countries with high power distance do not spend more hours at his job or business. Also, there is a negative correlation which is quite close to zero between this dimension and writing skills, which means that high power distance and writing reports and fill in form is not related.

6.5. Correlation between literacy, numeracy and problem solving and skill use index

As a final analysis, we are going to study the correlation between the literacy, numeracy, problem solving variables and the skill use variables. It will be normal, that literacy and writing and riding skills will be correlated, as well as numeracy and numeracy skills. It is logical to think, that those cultures whose managers exhibit great scores in use of writing and reading skills, will have a greater punctuation in literacy. In the same manner, managers scoring great in use of numeracy skills will have a good punctuation in numeracy.

Problem solving should be related with all, since all skill use indexes are needed when problem solving.

Insert table 8. Correlation between manager's activities and literacy, numeracy and problem solving

The data given above and the significance of that data support our thoughts. All the correlations are positive, except planning skills use with the three other variables, ICT skills with literacy and numeracy and learning at work with literacy. However, these negative correlations are not significant.

7. CONCLUSIONS

First of all, few studies have been done about what are the tasks and activities that managers perform in their position. Before Mintzberg few schools put interest in this topic, and they were not as focused as him in studying what do managers do. Mintzberg was the first one that made an in-deep study about this topic and this was more than forty years ago. Since then, the PIIAC is the most completed survey in which we can find information about that, and it is just a part of the whole study. It is not centered in this topic. We considered that this is an interesting topic that should be researched in order to get to know better the manager's profession.

Then, although culture has been an important debate during the last years and it has been studied how it influences the international negotiations, no study has been made about how culture affect what do managers do in their position. Although we have not been able to give significant results it will be interested to repeat this study when more data about more countries will be available. This study will help to understand better this profession and if there are differences among countries. Also it will be helpful to see such things as whether what do managers do and therefore culture influence the in the productivity of companies.

In our study, as we have said before, few correlations are significant therefore we cannot conclude that the results presented in the previous section are real. Because of that we can state that this is a 'negative study'. Therefore we cannot extrapolate the results given in this study to the all population.

The main reason that can explain the lack of significance is that our sample is not large enough. There are nearly 200 countries in the world and we just have taken 21, one tenth of the total sample. The PIIAC survey is a very complete study but just offers data for those countries at the moment and that may have limited our study. Since as larger is the sample, the greater will be the statistical significance of a study, this study may be repeated in future years when the PIIAC study is completed.

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9. TABLES

TABLE 1. OECD countries scores in Hofstede's national cultural dimensions

COUNTRY	POWER DISTANCE	INDIVIDUAL ISM	MASCULI NITY	UNCERTAINTY AVOIDANCE	LONG TERM ORIENTATION	INDULGENC E
SLOVAKIA	100	52	100	51	77	28
SWEDEN	31	71	5	29	53	78
AUSTRIA	11	55	79	70	60	63
BELGIUM	65	75	54	94	82	57
ENGLAND	35	89	66	35	51	69
CANADA	39	80	52	48	36	68
CZECH REPUBLIC	57	58	57	74	70	29
GERMANY	35	67	66	65	83	40
DENMARK	18	74	16	23	35	70
SPAIN	57	51	42	86	48	44
ESTONIA	40	60	30	60	82	16
FINLAND	33	63	26	59	38	57
FRANCE	68	71	43	86	63	48
IRELAND	28	70	68	35	24	65
ITALY	50	76	70	75	61	30
JAPAN	54	46	95	92	88	42
KOREA	60	18	39	85	100	29
NETHERLA ND	38	80	14	53	67	68
POLAND	68	60	64	93	38	29
RUSSIA	93	39	36	95	81	20
USA	40	91	62	46	26	68

TABLE 2. OECD countries scores in The Globe Project national culture dimensions

COUNTRY	ASSERTI VENESS	FUTURE ORIENTATIO N	GENDER EGALITARIS M	HUMAN ORIENTATIO N	IN GROUP COLLECTIVIS M	INSTITUTIONAL COLLECTIVISM	PERFORMANCE ORIENTATION	POWER DISTANCE	UNCERTAINTY AVOIDANCE
SLOVAKIA	-	-	-	-	-	-	-	-	-
SWEDEN	3,38	4,39	3,84	4,1	3,66	5,22	3,72	4,85	5,32
AUSTRIA	4,62	4,46	3,09	3,72	4,85	4,3	4,44	4,95	5,16
BELGIUM	-	-	-	-	-	-	-	-	-
ENGLAND	4,15	4,28	3,67	3,72	4,08	4,27	4,08	5,15	4,65
CANADA	4,05	4,44	3,7	4,49	4,26	4,38	4,49	4,82	4,58
CZECH REPUBLIC	-	-	-	-	-	-	-	-	-
GERMANY	4,73	4,27	3,1	3,4	4,02	3,79	4,25	5,54	5,22
DENMARK	3,8	4,44	3,93	4,44	3,53	4,8	4,22	3,89	5,22
SPAIN	4,42	3,51	3,01	3,32	5,45	3,85	4,01	5,52	3,97
ESTONIA	-	-	-	-	-	-	-	-	-
FINLAND	3,81	4,24	3,35	3,96	4,07	4,63	3,81	4,89	5,02
FRANCE	4,13	3,48	3,64	3,4	4,37	3,93	4,11	5,28	4,43
IRELAND	3,92	3,98	3,21	4,96	5,14	4,63	4,36	5,15	4,3
ITALY	4,07	3,25	3,24	3,63	4,94	3,68	3,58	5,43	3,79
JAPAN	3,59	4,29	3,19	4,3	4,63	5,19	4,22	5,11	4,07
KOREA	4,4	3,97	2,5	3,81	5,54	5,2	4,55	5,61	3,55
NETHERLA NDs	4,32	4,61	3,5	3,86	3,7	4,46	4,32	4,11	4,7
POLAND	4,06	3,11	4,02	3,61	5,52	4,53	3,89	5,1	3,62
RUSSIA	3,68	2,88	4,07	3,94	5,63	4,5	3,39	5,52	2,88
USA	4,55	4,15	3,34	4,17	4,25	4,2	4,49	4,88	4,15

TABLE 3. OECD's scores in PIIAC's survey

Country	Frequency of writing tasks	Extend of task discretion	Frequency of reading	Frequency of planning	Frequency of use of numeracy	Frequency of influencing others	Frequency of uce of ICT	Frequency of learning
SLOVAKIA	2,282	2,695	2,516	2,679	2,676	2,594	2,521	2,345
SWEDEN	2,382	2,746	2,729	2,579	2,452	2,859	2,531	2,245
AUSTRIA	2,541	2,927	2,760	2,552	2,563	2,637	2,484	2,128
BELGIUM	2,482	2,928	2,645	2,687	2,599	2,665	2,604	2,129
ENGLAND	2,634	2,290	2,536	2,823	2,570	2,799	2,667	2,090
CANADA	2,549	2,377	2,607	2,607	2,691	2,751	2,694	2,254
CZECH REPUBLIC	2,495	2,832	2,569	3,147	2,801	2,569	2,643	2,038
GERMANY	2,580	2,918	2,829	1,932	2,833	2,680	2,533	2,049
DENMARK	2,416	2,864	2,794	2,898	2,494	2,978	2,766	2,259
SPAIN	2,438	1,899	2,739	2,328	2,154	2,402	2,138	2,768
ESTONIA	2,093	2,619	2,682	2,889	2,621	2,761	2,724	2,203
FINLAND	2,485	2,734	2,768	2,312	2,814	2,827	2,602	2,074
FRANCE	2,497	2,263	2,585	2,556	2,720	2,642	2,477	2,451
IRELAND	2,466	2,217	2,550	2,876	2,496	2,902	2,567	2,089
ITALY	2,027	2,310	2,464	2,466	2,378	2,508	2,391	2,075
JAPAN	2,846	2,915	2,984	1,885	2,473	2,690	2,391	1,903
KOREA	2,412	2,610	2,832	2,141	2,366	2,611	2,442	1,433
NETHERLANDS	2,407	2,516	2,567	2,603	2,344	2,564	2,517	2,098
POLAND	2,352	2,619	2,521	2,987	2,706	2,708	2,524	2,051
RUSSIA	2,312	2,117	2,164	2,518	2,338	2,656	2,616	2,217
USA	2,712	2,511	2,751	2,750	2,772	2,916	2,886	2,349

TABLE 4. Mean score in literacy, numeracy and problem solving by country

COUNTRY	LITERACY	NUMERACY	PROBLEM SOLVING
	MEAN	MEAN	MEAN
SLOVAKIA	285	296	285
SWEDEN	302	307	300
AUSTRIA	290	300	295
BELGIUM	297	308	295
ENGLAND	296	290	299
CANADA	294	288	294
CZECH REPUBLIC	289	297	297
GERMANY	297	310	297
DENMARK	292	307	297
SPAIN	273	274	
ESTONIA	296	299	290
FINDLAND	315	314	300
FRANCE	295	303	
IRELAND	281	279	286
ITALY	268	274	
JAPAN	311	317	300
KOREA	285	281	279
NETHERLANDS	299	301	295
POLAND	296	292	290
RUSSIA	276	277	290
USA	295	288	293

TABLE 5. Correlation among literacy, numeracy and problem solving

	LITERACY	NUMERACY	PROBLEM SOLVING
LITERACY	1		
NUMERACY	0,859**	1	
PROBLEM SOLVING	0,689**	0,712**	1

Meaning of abbreviation: + p<0.10, * p<0.05, ** p<0.01

TABLE 6. Correlation between manager's activities and Hofstede's model

	<i>Frequency of writing tasks</i>	<i>Extend of task discretion</i>	<i>Frequency of reading</i>	<i>Frequency of planning</i>	<i>Frequency of use of numeracy</i>	<i>Frequency of influencing others</i>	<i>Frequency of use of ICT</i>	<i>Frequency of learning</i>
POWER DISTANCE	-0,242	-0,250	-0,506*	-0,030	-0,068	-0,489*	-0,233	0,081
INDIVIDUALISM	0,139	-0,054	-0,083	0,398 ⁺	0,320	0,412 ⁺	0,471*	0,392 ⁺
MASCULINITY	0,274	0,112	0,016	-0,132	0,247	-0,224	-0,167	-0,099
UNCERTAINTY AVOIDANCE	-0,035	-0,060	-0,111	-0,342	-0,132	-0,669**	-0,505*	-0,146
LONG TERM ORIENTATION	-0,137	0,292	0,057	-0,445*	-0,158	-0,526*	-0,297	-0,430 ⁺
INDULGENCE	0,485*	0,071	0,285	0,093	0,015	0,526*	0,254	0,190

Meaning of abbreviation: + p<0.10, * p<0.05, ** p<0.01

TABLE 7. Correlation between manager's activities and The Globe Project dimensions

	<i>Index of use of writing skills at work</i>	<i>Index of use of task discretion at work</i>	<i>Index of use of reading skills at work</i>	<i>Index of use of planning skills at work</i>	<i>Index of use of numeracy skills at work</i>	<i>Index of use of influencing skills at work</i>	<i>Index of use of ICT skills at work</i>	<i>Index of learning at work</i>
ASSERTIVENESS	0,137	-0,015	0,178	-0,127	0,175	-0,368	-0,079	0,014
FUTURE ORIENTATION	0,536*	0,578*	0,632**	-0,100	0,225	0,412 ⁺	0,319	-0,166
GENDER EGALITARISM	-0,163	-0,087	-0,545*	0,608**	0,165	0,387	0,458 ⁺	0,374
HUMAN ORIENTATION	0,218	0,117	0,054	0,301	0,030	0,691**	0,502*	-0,157
IN GROUP COLLECTIVISM	-0,274	-0,451 ⁺	-0,334	-0,080	-0,374	-0,490*	-0,472 ⁺	-0,145
INSTITUTIONAL COLLECTIVISM	0,219	0,430 ⁺	0,311	-0,044	-0,154	0,429 ⁺	0,147	-0,523*
PERFORMANCE ORIENTATION	0,579*	0,281	0,564*	-0,036	0,226	0,176	0,205	-0,220
POWER DISTANCE	-0,092	-0,374	-0,161	-0,458 ⁺	-0,076	-0,484*	-0,484*	-0,126
UNCERTAINTY AVOIDANCE	0,276	0,558*	0,508	0,024	0,394	0,406	0,227	0,143

Meaning of abbreviation: + p<0.10, * p<0.05, ** p<0.01

TABLE 8. Correlation between manager's activities and literacy, numeracy and problem solving.

	LITERACY	NUMERACY	PROBLEM SOLVING
Index of use of writing skills at work (derived)	0,381*	0,236 ⁺	0,468 ⁺
Index of use of task discretion at work (derived)	0,481**	0,813**	0,380
Index of use of reading skills at work (prose and document texts - derived)	0,612*	0,628*	0,281
Index of use of planning skills at work (derived)	-0,358	-0,347	-0,089
Index of use of numeracy skills at work (basic and advanced - derived)	0,299*	0,261*	0,255
Index of use of influencing skills at work (derived)	0,170*	0,026	0,235
Index of use of ICT skills at work (derived)	-0,102	-0,198	0,135
Index of learning at work (derived)	-0,028	0,087	0,331

Meaning of abbreviation: + p<0.10, * p<0.05, ** p<0.01

10. FIGURES

FIGURE 1. Country Clusters According to GLOBE (House, 2004)

